FILBERT GROWING

In that section of the northwest located west of the Cascades we have one of the best nut growing regions in the world. Here filberts, walnuts and chestnuts do as well or better than in their ancestral homes. Filbert orchards are thriving from Medford to the British Columbia line, wherever soil conditions suit.

Filbert orcharding offers certain advantages not often found in other orcharding. The nut trees are long-lived, some orchards in England having been in commercial production for over 200 years. While filbert trees require cultivation they do not require the pampering that is necessary with many other fruits. Their crops are far less perishable. Rain at blossom and at harvest is much less dangerous than with other crops. Thinning is unnecessary; spraying a small item; pruning not expensive and the filbert grower is not harassed by the mad rush that is present in the harvest of perishable fruits. A minimum amount of labor and of equipment is required. Cash outlay in producing a crop is very small where one does his own work, for most of the production costs are labor costs.

The United States imports up to 25,000,000 pounds of filberts annually. This consumption has been reached without any organized effort to increase sales. What will be the consumption of this fine nut when some real sales effort is put behind it? Why import all these nuts when our western nut is so superior?

The wild hazelnut is the only nut native to the northwest. The filbert, its cultivated cousin, will soon become the dominant nut crop of this region.

The pioneer Oregon and Washington filbert plantings were so successful that they inspired the plantings of many more orchards. Improved methods of filbert culture have been developed in recent years; pollenation is better understood, and now a group of new and greatly improved varieties of American origin are appearing that show promise of taking the places of the older European varieties. With these advantages the man who plants an orchard now has a right to expect even better results than were possible with the older planters.

Nuts, which were formerly used almost altogether as a holiday treat, are now rapidly entering into the every-day diet and as meats become higher in price the use of nuts will undoubtedly continue to increase.

Soils and Locations

There are thousands of acres of land suited to filbert culture in every county west of the Cascade mountains and other thousands that are unsuited. Don't plant on questionable soils, for in these days of tough competition only the best located and best cared for plantings will be most profitable.

Filberts do best in soils that are well drained, fertile, retentive of moisture and which are deep enough to permit storage of winter rains enough to carry the trees through the dry summer months. If fertility is low it can be increased by use of cover-crops, manures and commercial fertilizers.

Spacing

Filberts are generally spaced 25 feet apart, which require 70 trees per acre. A few growers are planting at 15 feet apart, with the idea of taking out part of the trees, starting at about 10 years of age, when they begin to crowd. This closer planting takes 192 trees per acre. This is an excellent method of planting, provided the grower is sure he has the nerve to cut down 10- to 12-year-old trees just as soon as they begin to crowd adjoining trees, for such a spacing accommodates 2¾ times as many trees as does the orthodox spacing of 25 feet and UP TO THE TIME THAT THE TREES ARE LARGE ENOUGH TO START CROWDING, THE YIELD PER ACRE IS GOVERNED BY THE NUMBER OF TREES PER ACRE, other conditions being equal. The dangerous feature of this close spacing is that so many growers will delay too long the time when they should start removing excess trees.

Fall planting is to be preferred to spring planting, where possible, for the fall-planted tree makes some root development during the winter and is ready to start growing earlier than is the spring planted one. Filbert trees are available from the nursery some time in November. Plow the land deeply before planting but don't harrow it down if planted in fall. Leave the ground rough and it will weather down during the winter.

Selection of Nursery Stock

The selection of sturdy nursery stock that is true to name is very important. The novice in orcharding is easily confused by the claims of various nurserymen, each claiming eloquently that his strain is the only one to be planted and that his type of propagation is the only type that will insure success.

Filbert trees are propagated in various manners and a little knowledge of these different types of propagation is essential to the grower before he can intelligently select his trees.

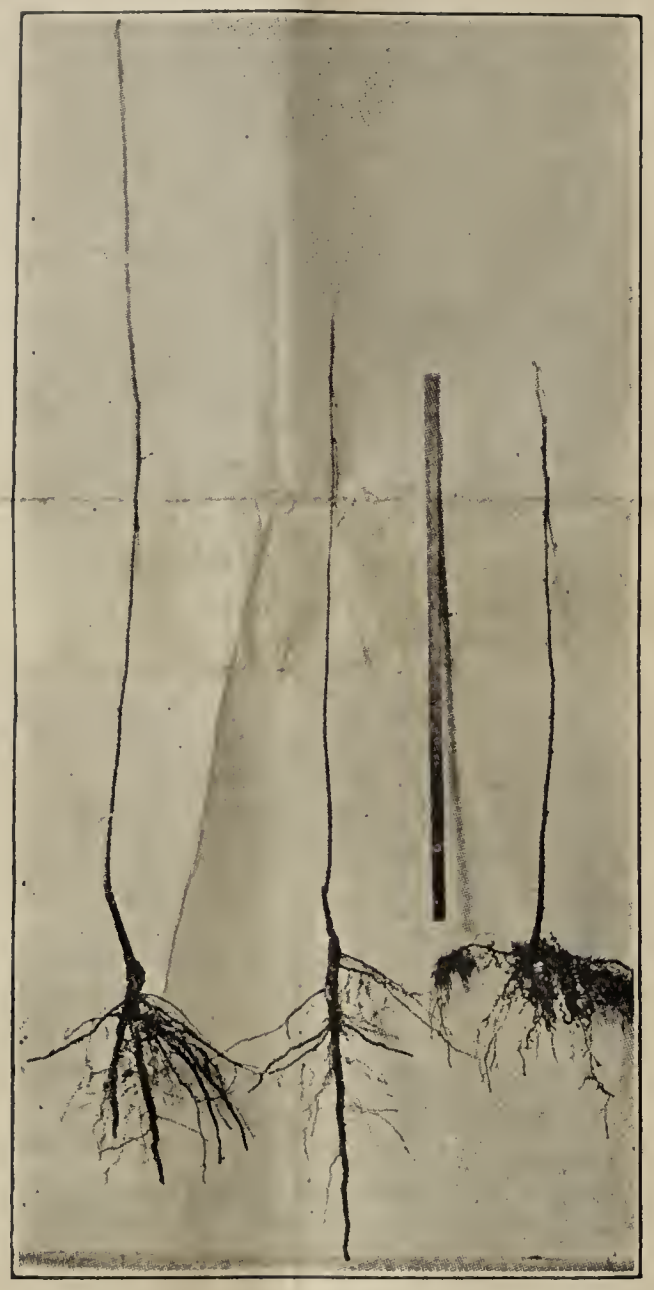
The original orchards of the northwest were from trees propagated from suckers. Then continuous layers were used, 5 to 10 new trees being taken from one layer. This type of tree was weak and produced too many suckers so it was supplanted by the "tip-layering" method, which produces one salable tree per layer. The lighter of these "tip-layers" is, in many nurseries, lined out in nursery rows and cultivated a year before being placed on the market. This is then called a "nurseried" tree. The latest development is the "budded" tree. This tree started from a seed and after a year or two these seedlings are budded over to the desired varieties in the nursery rows and after a year's growth a new trunk of the chosen variety is developed. These are called budded trees.

Fine orchards can be found in this region that have been developed from each of these types of propagation. Some types of propagation have certain advantages over others but first class orchards can be had from tip-layered trees, from nurseried trees or from budded trees.

Of the three types of trees mentioned above the tip-layered can be sold for less because it can be produced more cheaply. It should be cut back heavily when planted to relieve the roots of the drain of supporting a heavy top before they themselves are well established. These trees will have suckers like any other filbert tree. The more shallow that they are planted the fewer the suckers, just as with any other type of filbert tree.

The nursered trees are usually tip-layered trees that have been given an additional year's growth in the nursery row. Having a heavier root system they do not need cutting back when planted in the orchard.

Nature propagates her trees entirely from seedlings. Nurserymen have long realized that the seedling type of root is preferable to any other type but the filbert budding, which is necessary to transform the



seedling over to the desired variety, has not been mastered until very recently and the nursery stands are not yet such as to permit propagation of trees under this method as cheaply as in the older tip-layering or transplanted methods. The seedling root is much deeper growing than that of the other methods of propagation, as can be seen in the pictures on this page (trees A and B C is a layered type of tree.) Budded trees come from the nursery with straight, unbranched trunks, like apple and prune trees, which permits the grower to head the tree at any height he choses. These trees have a deep root system that enables the young tree to draw from the deeper, more moist stratas of soil right from the day it is planted, thus insuring a quicker first-year growth and a more rapid growth through the life of the tree. Suckering of these seedling trees is easier and less expensive.

Filbert Varieties

The matter of varieties is very important. In Oregon the Barcelona has long been the major variety but recently the new Brixnut has been gaining much favor, due to its large size, early bearing and premium returns. In Washington the DuChilly and Barcelona varieties are about equal in favor, there being no Brixnut plantings of bearing age in that state as yet. DuChilly, in Oregon, is used only as a pollenizer for Barcelona but in Washington it is planted as a major variety in many cases..

Usually the grower, with a block of each of several varieties, will have a more stable income as it has been noticed that often the heavy crop of one variety hits in a year when one of the other varieties is a little light. Under Oregon conditions we would suggest a planting half of Barcelona and half of Brixnut, the former being pollenized with Daviana, DuChilly and Nottingham and the latter with Halls Giant.

Under Washington conditions, if the grower is sold on DuChilly we would split the planting into three major varieties, pollenizing the DuChillies with Alpha and Gassoway.

As new varieties are offered it is advisable to plant a few of each for test purposes. There are a lot of very promising new varieties of American origin being tested out now and from these will undoubtedly come new varieties greatly superior to the old European varieties that now dominate our plantings.

None of our filbert varieties are commercially self-fertile. It is necessary that we plant certain mixtures of varieties in order that we may have pollenation. These varieties which we plant in order to make our principal varieties bear are called pollenizers. They also bear nuts but are not usually heavy bearers.

Barcelona is the most planted variety in the northwest. It is a large, round nut that drops freely from its husk. This self-husking quality is a valuable one. Barcelona makes a large tree and bears early when properly pollenated. Daviana, DuChilly and Nottingham are all pollenizers for Barcelona. By using several pollenizers we extend the pollen flow over a much longer period than is possible with a single variety, thus catching the early as well as late Barcelona blossoms.

DuChilly is the variety second in importance a present. It is a long nut. This variety is only partially self-husking, 40 to 50 per cent of the nuts falling free of the husk. The DuChilly tree is not as large and vigorous as is Barcelona. Some markets will pay a premium for DuChilly. DuChilly is especially prized by the growers around Vancouver, Washington. Here many growers use it as a main commercial crop. In all other sections of the northwest, Barcelona is the leading variety. The principal pollenizers used with DuChilly are Daviana, Gassoway and Alpha. Where Barcelona is used as the leading variety Daviana is used to pollenize DuChilly, for it is also an excellent pollenizer for Barcelona. In the Vancouver section where DuChilly is

more heavily planted. Alpha and Gassoway are used for pollenizers.

Brixnut is a round nut of the Barcelona type, tre variety originating in Oregon. It is a variety that shows promise of taking the lead away from Barcelona, being the most promising nut of American origin. It is a larger nut than Barcelona and commands a premium over Barcelona in the same markets. Brixnut is self-husking. It is pollenized by Halls Giant, which is also a self-husking round nut. The two varieties are that similar in appearance that they can be harvested together as a single variety. Our other filbert varieties must be kept separate at harvest because of diversity of shape. It is claimed by growers that this variety will not produce over 2 per cent blanks where pollenized with the proper strain of Halls Giant. Brixnut bears early and is a rank grower when budded on Barcelona seedling roots.

Daviana is a handsome nut of the DuChilly, or long type. It makes a handsome, large, upright tree and is a large producer of pollen. It is an excellent pollenizer for both DuChilly and Barcelona but is a shy bearer itself.

Purple Aveline is an ornamental, small growing filbert tree that has beautiful purple leaves. It is of no value commercially but is much used in landscape work.

Nottingham is an excellent pollenizer for Barcelona It produces a medium to small size nut but of fine quality. It is thin shelled and is self-husking. It will replace some of the non-husking Barcelona pollenizers when it is produced in greater quantity by the nurseries. No commercial supply of this variety has been available due to the fact that there were so few mother trees from which to obtain layers. Now that the budding of filberts has been mastered by a few of the nurseries this and other scarce varieties will rapidly become available.

Cowlitz is a new variety offered for test purposes for the first time this season. Long type of nut. Larger than DuChilly and much more free-husking. Good quality and recommended for trial, especially in those regions where DuChilly does best. Blossoms late like DuChilly.

Halls Giant is planted as a pollenizer for Brixnut. Its nuts are smaller than Brixnut but average as large or a little larger than Barcelona. The nut is a round type, resembling Brixnut enough that the two varieties can be harvested and marketed as one variety without spoiling appearnce of the pack. The nut is self-husking. The tree is a vigorous, upright growing type. The catkins usually show their pollen too late to pollenize Barcelona but are perfectly timed for Brixnut.

Alpha is a DuChilly type nut, but not a heavy bearer. One of the best DuChilly pollenizers available.

Gassoway is a heavy producer of pollen and is used to pollenize DuChilly. Nut small and worthless.

Yields

The yield per acre, the price per pound, the cost of production and the age of profitable bearing are all important matters to the prospective grower. Yield varies greatly, with a hundred different factors influencing it. We give below a number of performance records, mostly from orchards of very ordinary production. It is not our purpose to cite simply a few record breaking yields and leave the impression that the pounds from 2¾ acres 10 years old.

A planting near Aumsville produced six pounds per tree the sixth year. A five-year-old tree at Eugene produced 16 pounds of nuts; an eight-year-old tree at Woodburn produced 35 pounds.

An Independence grower reports 15 pounds of green nuts from two six-year-old trees; four to eight pounds from five-year-old trees and half to one pound from four-year-old trees.

A four-year-old orchard at Albany produced four pounds per tree the fourth year; 5½ pounds the fifth year; 9 9|10 pounds the seventh year and 8 pounds the ninth year. This orchard is a very ordinary one.

One large tree in Portland is claimed to have produced 150 pounds of filberts one season. Many orchard trees 20 to 25 years old have produced 60 pounds per tree. Of course one cannot expect the average of any orchard to reach the peak yields of some of these exceptional trees.

One three-year-old Brixnut orchard, without pollenizers, produced 560 pounds from 1000 trees. Another of 800 trees produced 65 pounds the third year and 1000 pounds the fourth year. Single five-year-old trees have produced as much as 12 pounds. Growers with Brixnut and Barcelona plantings growing side by side, under identical conditions, report that the Brixnut invariably outyields the Barcelona.

Returns

Before the depression the growers were netting 14 to 16 cents per pound for Barcelonas, 2 to 3 cents more for DuChillies. About 50 per cent of the Brixnuts grade out in the Jumbo grade, which is larger than the largest Barcelona grade. This grade has brought 5 to 7 cents premium to the Brixnut growers.

Summary

1. Filberts can be grown all through the territory west of the Cascade mountains where the soil is well drained, fertile, retentive of moisture and fairly deep.

2. There are three types of filbert trees offered that are safe to plant. Fine orrhards have been developed from tip-layered trees, from transplanted nurseried trees and from budded trees. The older varieties may be had in either of the first two types of propagation while the newer varieties are available largely in the budded type of tree.

3. Barcelona and Brixnut are the two commercial varieties being planted in Oregon, while in Washington these two varieties and DuChilly are used.

4. Due to the fact that filberts, like other fruits but to less extent, have heavy and light crops, it is well to plant more than one variety commercially on the theory that the heavy year of one variety often comes on the light year of the other.

average grower will duplicate such yield.

A four-year-old orchard near Salem, grown on newly cleared, river bottom soil produced 1200 pounds of nuts from 490 trees or nearly 2½ pounds per tree.

A Barcelona orchard of 6 acres, on hill land that is none too productive, bore 300 pounds the fourth year; 600 pounds the fifth year and 2000 pounds the sixth year.

In Kent, England, there are plantings 200 years old that are still producing a ton of nuts per acre. It

is said that the average for England is 1000 pounds per acre, while most of the better growers get 2000 pounds and a few record crops have reached 4000 pounds.

A Gaston grower grew $50 worth of filberts from 85 trees the fourth year. A Dallas grower reports 2780

5. All filberts require pollenizers. Never plant a single variety alone and expect crops. Barcelona is pollnized by DuChilly, Daviana, Nottingham and Montebello. Brixnut is pollenized by Halls Giant. DuChilly is pollenized by Alpha, Gassoway and Daviana.

6. Filberts are the most attractive orchard crop to plant in the northwest. No other section of America can grow them commercially.

7. In the times of depression prepare for prosperity. Plant now while land, labor and trees are down in price and be ready to cash in when prices raise.

We believe that in time, when budding technique improves to the point where budded trees can be sold as cheaply as other types of trees, that this type will entirely supplant the other methods of propagation. At present we are confining our budding largely to the newer varieties such as Brixnut and Cowlitz and several other promising varieties that we are not offering the trade this year, and to the propagation of pollenizers, the supply of which has been short in the past. This year we offer Alpha, Gassoway, Daviana, Nottingham, Halls Giant as well as the Brixnut and Cowlitz, on budded roots.

The grower who is confused by the claims of various nurserymen as to the merits of various types of propagation, will do well to settle the matter in his own mind by making a comparative planting of the various types. Pearcy Bros. nursery recognizes merits in each of the various types of trees and offers trees of all three types to the trade so that it is not necessary for us to build up a high powered line of sales talk designed to push any particular type of tree and to knock all other types. We believe that the budded tree makes the best type of tree but it is more expensive as yet, and only the newer varieties of filberts are being propagated in this manner to any extent as yet. While we believe that the budded tree is superior, at the same time we know that fine orchards can be developed from the other types of trees and it is only these other types that are available today in commercial quantities in the Barcelona and DuChilly varieties.